

# MSL8256

## Server Blade

RUGGEDIZED | MADE IN USA

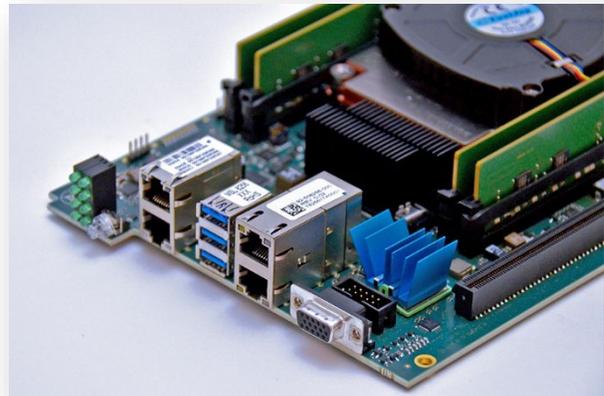
## The **Baddest Blade Board** in the Industry

The MSL8256 server blade is designed to operate in harsh conditions and provide your rugged server, blade server, or workstation with the extra grit it needs. Achieve maximum performance with up to 1 TB of RAM and dual Gold/Silver Xeon® CPUs.



### Eight **DDR4 Slots**

Achieve peak performance with the MSL8256's eight, four-channel DDR4 slots, or a maximum of 1 TB of RAM.



### Silver/Gold Xeon CPUs

The MSL8256's Intel® Xeon® Gold/Silver Scalable processors provide up to 22 cores and 3.4 GHz of base processor frequency.

### ECC Memory Support

Prevent data corruption with error-correcting code memory, perfect for mission-critical applications.

## Section 5 / System Overview

### PROCESSOR BOARD

MSL8256

### COMPATIBLE CHASSIS MODEL NUMBER(S)

TRC1001, TRC1002, MBS1001, MBS1002, MBS2000, MBS2001

[Contact us for custom options](#)

### PROCESSORS

- ▶ Intel® Xeon® Scalable Processors
- ▶ CPU TDP support up to 125W

CPU	Cores/Threads	Frequency	Cache	TDP
Gold 6230	20/40	2.10-3.90GHz	27.5MB	125W
Gold 5218	16/32	2.30-3.90GHz	22MB	125W
Silver 4209T	8/16	2.20-3.20GHz	11MB	70W

### MEMORY

**Slots:** 8x DDR4 with ECC support

**Memory Support:** Four channels

**Capacity:** Up to 1TB DDR4 ECC RDIMM

**Type:** ECC DDR4-2933 RDIMM

**DIMM Sizes:** 128GB, 64GB, 32GB, 16GB

**Error Detection:** Corrects single-bit errors and detects double-bit errors using ECC memory

### STORAGE

#### Type(s):

- ▶ 2x SSD/HDD SATA3 (6 Gbps) drives of any size with Riser
- ▶ 4x M.2 NVMe PCIe 3.0 x4 with Riser

**Capacity:** No current limit on drive capacity

**SATA Modes:** AHCI or RAID

**RAID:** Intel® RSTe SATA RAID support 0/1/5/10 Modes

### PCIe SLOT CONFIGURATION

**Type(s):** x2 PCIe Gen 3 x16 with riser

### ON-BOARD DEVICES

**Chipset:** Intel® C622

**IPMI:** Support for Intelligent Platform Management Interface v2

- ▶ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

### Network Controllers:

- ▶ Dual Intel® i350AM2 Gigabit Ethernet
- ▶ Intel® x556 10 Gigabit Ethernet
- ▶ Dual Intel® i210 Gigabit Ethernet

**Graphics:** ASPEED AST2400 BMC; VGA 1920X1200@60Hz 32bpp

**TPM 2.0:** Secure cryptoprocessor that helps you with actions such as generating, storing, and limiting the use of cryptographic keys. A requirement for Microsoft's bitlocker drive volume encryption features.

### INPUT / OUTPUT

**USB:** 7x USB 3.0 Ports

- ▶ 3x USB 3.0 Ports on Board
- ▶ 4x USB 3.0 Ports via Midplane and/or Riser

**Display:** 1x VGA Port

**LAN:** 6x RJ-45 Ethernet LAN ports

- ▶ 2x RJ-45 10 Gigabit Ethernet LAN Ports
- ▶ 4x RJ-45 Gigabit Ethernet LAN Ports (rear, midplane)
  - 1x i210 Gigabit Ethernet LAN Port
  - 1x i210/IPMI Gigabit Ethernet LAN Port
  - 1x MPI350 Gigabit Ethernet LAN Port
  - 1x MPI350 Gigabit Ethernet LAN Port

**Serial:** 1x RS232 Serial Port via Header

### PROCESSOR BOARD WEIGHT

Average Weight: 6.3 lbs.

*\*System weight and dimensions dependent on rugged chassis and component selection*

### SYSTEM BIOS

**BIOS Type:** 128Mb Macronix MX25L12835FM2I-10G SPI Serial EEPROM (SPI Flash)

#### BIOS Features:

- ▶ Plug and Play (PnP)
- ▶ TPM 2.0
- ▶ PCI 2.2
- ▶ ACPI 1.0 / 2.0
- ▶ USB Keyboard Support
- ▶ SMBIOS 2.3
- ▶ UEFI

### SYSTEM MANAGEMENT

ASPEED AST2400 Baseband Management Controller: rKVM, System Monitoring, Out of Band Management

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: 0°C - 50°C

Storage Temperature: -40°C - 70°C

Operating Humidity: 8% - 90% Non-Condensing

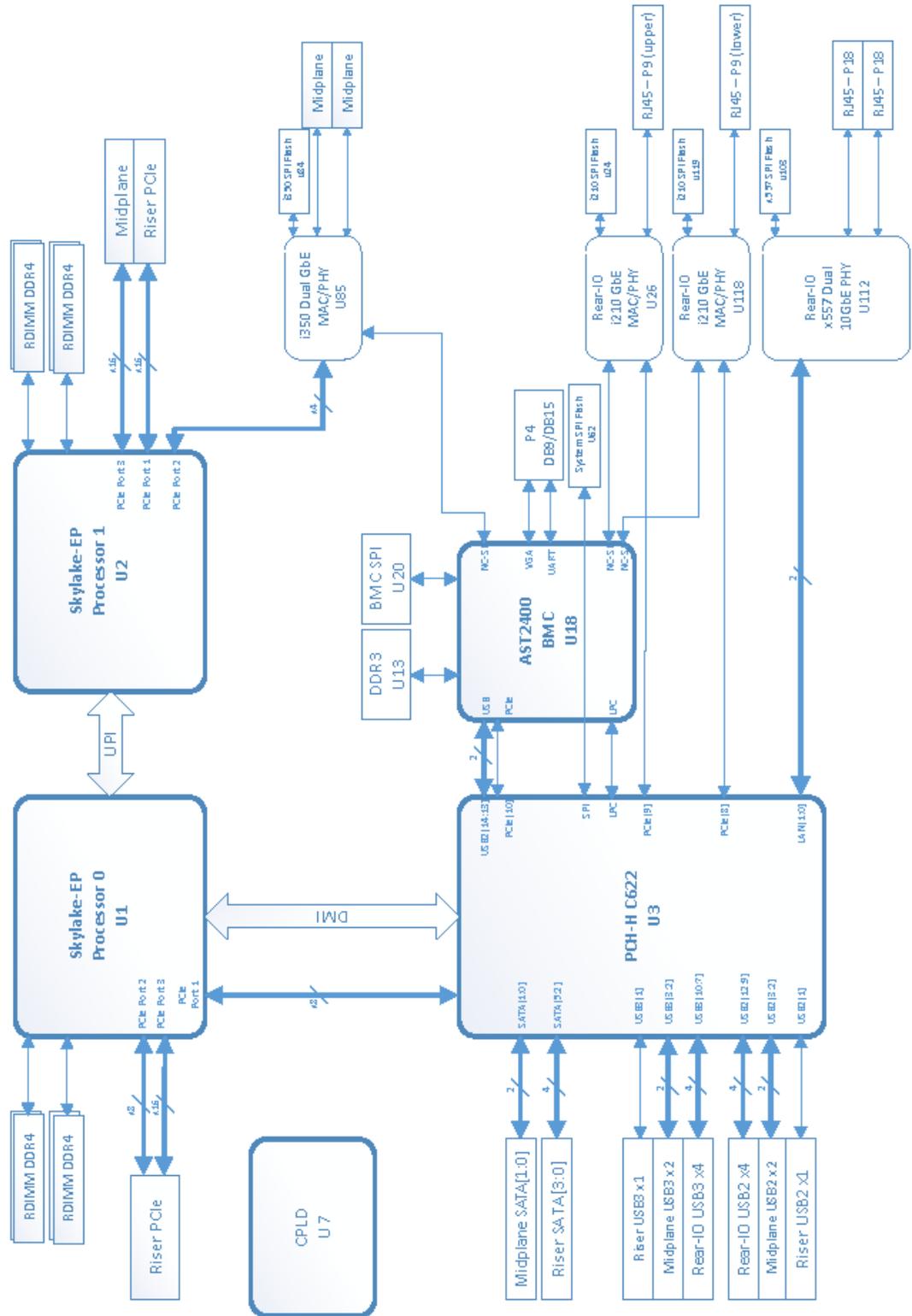
Non-operating Humidity: 5% - 95% Non-Condensing

*\*Numbers noted are dependent on CPU selection. Please [contact Trenton Systems](#) for specific CPU environmental specs.*

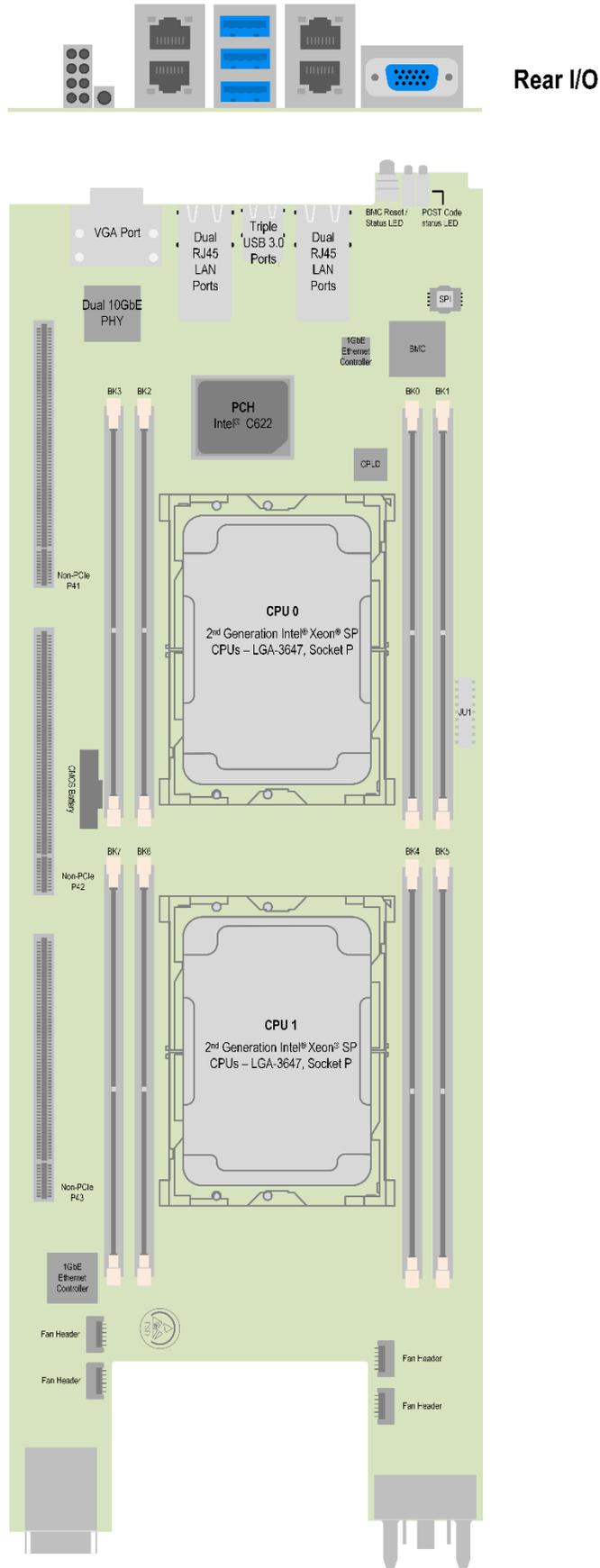


BLOCK DIAGRAM

MSL8256  
Modular Dual  
Skylake-EP



LAYOUT DRAWING





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